



48  
UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,881	12/05/2003	Jeffrey Jennings Krueger	KC-19,203	9190

7590 08/16/2006  
Melanie I. Rauch  
Pauley Petersen & Erickson  
Suite 365  
2800 West Higgins Road  
Hoffman Estates, IL 60195

EXAMINER
----------

ZEMEL, IRINA SOPJIA

ART UNIT	PAPER NUMBER
----------	--------------

1711

DATE MAILED: 08/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/729,881	Applicant(s) KRUEGER ET AL.	
	Examiner Irina S. Zemel	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 2, 5-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Federico in combination with Miller

The rejection stands as per reasons of record, incorporated in the instant rejection by reference.

Federico discloses flexible soft absorbent open cell foams comprising polystyrene and surfactant (non-ionic or mixed). The reference further expressly states that in order to improve the liquid intake of the foams, up to 30 % by weight of high impact polystyrene thermoplastic elastomer can be added to the compositions. See, for example, column 3, lines 15-21 and illustrative examples. Further addition of di- or tri-block copolymers to the compositions of Federico in the amounts of up to *about* 10 parts by weight would have been obvious from teachings of Miller who expressly discloses that addition of plasticizers and elastomers (including di-or tri-block elastomers) improves processing of styrene-base foams (as per column 7, lines 1-38 of Miller). See discussion above regarding di-/ tri- block elastomer amounts and ratios in the previous office action. The amounts of claimed elastomers (in combination) clearly meet the claimed limitation. Also, since the Miller reference discloses "about 10 parts by weight", the reference does not specify the amounts with any specificity or exactitude, thus implying that higher amounts are equally suitable in the absence of showing of

unexpected results or showing that addition of higher amounts would result in material change in the composition properties.

As to the newly added limitation of the foams being soft and flexible, first of all, those terms are relative and in the absence of numerical limitations defining "soft" and "flexible" are clearly met by the disclosed polystyrene based absorbent pads. Second, as discussed in the previous office action, the Federico reference does expressly disclose incorporation of butadiene based rubbers in the amounts of up to 30 % to improve absorbency. Moreover, contrary to the applicants statement, the reference recognizes that increased absorption capacity leads to inevitable loss of mechanical strength, i.e., softer and more flexible materials, and this softening effect is offset by laminating harder plastic materials.

The Federico reference does not address the physical properties claimed in the instant application, however, as per discussion above, it is believed that the disclosed modified foams would inherently exhibit the claimed properties. The burden is shifted to the applicants to provide factual evidence to the contrary.

### ***Response to Arguments***

Applicant's arguments filed 5-15-2006 have been fully considered but they are not persuasive. The applicants argue that The Federico reference does not disclose soft and flexible foams as claimed. The examiner can not agree with this position. As discussed in the previous office action and repeated above, the reference does disclose soft and flexible foams, especially in view that no objective requirements of the claimed terms of "soft" or "flexible" is given in the claims of the instant application. The

Art Unit: 1711

applicants then go to a lengthy discussion of the difference between HIPS and block elastomers, which the examiner is fully aware of. However, the discussion is simply not commensurate in scope with the claimed invention for several reasons. One of them, as discussed above, the limitations of "soft" and "flexible" are relative terms, and would be met, in the absence of numerical or objective definition of it, by any "relatively" soft and flexible foams. As per applicants own statement the food trays need to be fairly or relatively rigid and inflexible. This clearly implies that they are not completely rigid and inflexible and somewhat soft and flexible, thus meeting the claimed soft and flexible limitations (as compared to very rigid and inflexible objects). But even more importantly, the reference contains expressed discussion of effects of addition of butadiene based HIPS of mechanical strength, and also expressly discusses suitability of the sheets as liner pads in food trays that do not have to be reinforced with additional reinforcing materials, thus, again, implying that those pads are somewhat soft and flexible.

The applicants further argue that the applicants foam has very little compression resistance since the claimed compression set is less than about 20 %. The applicants' arguments are contrary to the conventional understanding of "compression set". In fact, the foams having less than 20 % compression set (or less than 20 % of unrecoverable deformation) are very resilient and have a very high compression resistance, i.e., are capable of high degree of recovery, similarly to the HIPS enforced polystyrene foams. Thus, the examiner simply can not see how the low compression set distinguishes it from the foams disclosed in Federico.

The applicants further argue that Federico teaches away from rapid fluid intake. The examiner simply can not find such a teaching in Federico.

The applicants state that the Federico reference does not describe the foams as having a fluid intake of about 1 ml/sec/in<sup>2</sup> or greater. While it may be so, simply because the reference is silent to a given property of the disclosed product, it does not mean that the claimed property is not inherently present in the product. The applicants argue that fast liquid intake is not required for food trays. This is matter of opinion what constitutes "fast intake" and whether it is required for food industry. However, no factual evidence that the trays of pads of Federico do not exhibit the required food intake are presented on the record. The applicants were invited on more than one occasion to provide factual comparative results but chosen not to do so.

The applicants chosen to compare the claimed compositions with commercially available PS meat trays. As discussed in the previous office action, Federico alone, and much less in combination with Miller< does NOT disclose commercially available PS trays. The comparative results utilizing commercially available polystyrene is not considered to be the closest prior art comparison, since the compositions disclosed in the Federico reference are much closer to the claimed compositions and contain all of the claimed components, including polybutadiene based impact resistant components. Note that none of the claims requires the elastomers to be entirely of the block structure, with some claims requiring the elastomers to comprise such block copolymers. Moreover, incorporation of block copolymers (in addition to other elastomeric components) would have been obvious from the disclosure of Miller (as

Art Unit: 1711

discussed above and in the previous office action) in the amounts up to about 10 parts by weight to 100 parts by weight of the polystyrene component, although such an addition may be obvious for different reasons that the applicants reasons. It has been long established by the case law that the reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant. *In re Linter*, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972) (discussed below); *In re Dillon*, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1990). The court also stated that claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). Thus, discovering that addition of specified elastomer results in some improved property, where such an addition is otherwise obvious, does not support patentability unless showing of unexpected results commensurate in scope with the claimed invention are presented on the record.

But, probably, the most important fact is that the applicants chosen to argue each of the applied references separately, while the rejection was made over the combined teachings of the cited references.

As discussed in the previous office action, the foams of Federico, as modified by the teachings of Miller would inherently exhibit all of the claimed properties and the claimed foams would have been obvious in the absence of showing of unexpected results that can be clearly attributed to addition of block elastomers. So far the record is

devoid of such showings and flexibility and softness would have been considered an expected results of addition of soft and flexible elastomers to PS.

The applicants further argue that the Miller reference does not fill the voids of the Federico reference. In this argument the Miller reference is taken alone and completely out of the context of its use in the rejection. As with Federico reference, the applicants chosen to argue this reference alone and not in combination with the teachings of Federico. The examiner never alleged that either one of the references alone, and expressly provided expressed reasons for combination as discussed above. It has been long established in the law that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The invention as claimed, thus, is still considered to have been unpatentable over the combined teachings of the cited references.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

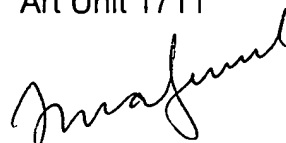
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 1711

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Irina S. Zemel  
Primary Examiner  
Art Unit 1711

A handwritten signature in black ink, appearing to read 'Irina S. Zemel', written in a cursive style.

ISZ